

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An electronic data processing circuit that uses current mode signalling, the circuit comprising:

-----a data source circuit with an output for a logic signal;

-----a data receiving circuit;

-----a communication conductor; ~~and~~

-----a transition coding circuit coupled between the data source circuit and the communication conductor, for driving the communication conductor in a first state in pulses in response to transitions in the logic signal and in a second state outside the pulses;

~~-----wherein the data receiving circuit comprising comprises a current supply and measuring circuit coupled to the communication conductor for supplying a current to the communication conductor to counteract the driving of the communication conductor, the data processing circuit being constructed so that the current that needs to be supplied is smaller when the communication conductor is driven in the second state than when the communication conductor is driven in the first state, the current supply and measuring circuit recovering the logic signal from measurements of the current,~~

~~-----and wherein the current supply and measuring circuit defines a threshold potential of the communication conductor at which the current substantially starts increasing from zero, the transition coding circuit and the current supply and measuring~~

circuit being constructed so that the potential of the  
communication conductor remains at the threshold or on a  
substantially zero current side of said threshold when the  
transition coding circuit drives the communication conductor in the  
second state.

2. (Cancelled).

3. (Currently Amended) ~~An The~~ electronic data processing  
circuit ~~according to as claimed in~~ Claim 1, wherein the current  
supply and measuring circuit ~~comprising~~ comprises:

— a current mirror circuit with an input coupled to the  
communication conductor; and

— a capacitive voltage measuring circuit coupled to an  
output of the current mirror.

4. (Currently Amended) ~~An The~~ electronic data processing  
circuit ~~according to as claimed in~~ Claim 3, ~~comprising wherein the~~  
~~electronic data processing circuit further comprises~~ a refresh  
transistor ~~with having~~ a main current channel coupled in parallel  
with the input of the current mirror and a control electrode  
coupled to an output of the current mirror, ~~for said refresh~~  
~~transistor making~~ the main current channel conductive each time  
when one of the pulses has been detected.

5. (Currently Amended) ~~An~~The electronic data processing circuit ~~according to as claimed in~~ Claim 3, wherein the transition coding circuit comprises a driver circuit ~~with having~~ a first transistor coupled between the communication conductor and a first power supply line, and a series connection of main current channels of a second transistor and a voltage limiting transistor coupled between the communication conductor and a second power supply line, the first transistor driving the communication conductor during pulses, the voltage limiting transistor limiting a voltage level to which the driver circuit drives the communication conductor outside the pulses to a threshold level of the current mirror.

6. (Currently Amended) ~~An~~The electronic data processing circuit ~~according to as claimed in~~ Claim 3, ~~wherein~~ the capacitive voltage measuring circuit ~~comprising~~comprises:  
-----a reset transistor ~~with having~~ a main current channel coupled to the output of the current mirror, for discharging the output of the current mirror; and  
-----a delay circuit between the output of the current mirror and a control electrode of the reset transistor for activating said discharging each time with a delay after detecting one of the pulses.

7. (Currently Amended) ~~An~~The electronic data processing circuit ~~according to as claimed in~~ Claim 3, wherein the current supply and measuring circuit is combined with a further driver, the

further driver comprising a first transistor with a main current  
5 channel coupled between the communication conductor and a first  
power supply line in series with the input of the current mirror  
and a second transistor with a main current channel coupled between  
the communication conductor and a second power supply line, the  
data processing circuit being arranged to supply pulses to control  
10 electrodes of the first and second transistor, so that the main  
current channel of the first and second transistor are made  
conductive and non-conductive respectively during the pulses, when  
data to be transmitted from the data receiving circuit changes.